

LISTING OF CLAIMS

Please amend the claims as follows:

1. (Previously Presented) An electro-optical modulator, comprising:
a housing with an input fiber at one end and an output fiber at another end thereof,
wherein the fibers are connected to the housing along substantially the same axis;
a Lithium Niobate chip having a low impedance and an RF electrode;
a microwave input chip coupled to the modulator chip, the microwave input chip
having a thin film resistor for connecting a RF connector to the RF electrode of the Lithium
Niobate chip, wherein the RF connector is positioned in the housing such that the RF
connector is substantially perpendicular to the axis of the fibers and the microwave input
chip is configured to increase the total input impedance of the modulator; and
a coplanar waveguide in the microwave input chip, the thin film resistor being
placed in the coplanar waveguide.
2. – 6. (Cancelled)
7. (Previously Presented) The electro-optical modulator of Claim 1, further
comprising a plurality of bondings for coupling the microwave input chip to the modulator
chip.
8. (Cancelled)
9. (Original) The electro-optical modulator of Claim 1, wherein the microwave
input chip is manufactured with a substrate of Alumina, Gallium Arsenide, Aluminum
Nitride or other type of substrates commonly used for microwave applications.
10. (Currently Amended) An electro-optical modulator, comprising:
a housing;

an input fiber connected to an end of the housing and an output fiber connected to another end of the housing, the fibers connected to the housing along substantially the same axis;

a RF connector connected to the housing such that the RF connector is substantially perpendicular to the axis of the fibers;

a modulator chip having a low impedance and an RF electrode, wherein the modulator chip is optically connected to the input fiber and the output fiber; and

a microwave input chip coupled to the modulator chip, the microwave input chip having a resistor member comprising ~~comprises~~ a thin film resistor with a low impedance for increasing the total input impedance of the modulator, the thin film resistor connects the RF connector to the RF electrode of the modulator chip.

11. (Previously Presented) The electro-optical modulator of Claim 10, wherein the resistor member comprises a thin film resistor.

12. (Previously Presented) The electro-optical modulator of Claim 10, wherein the resistor member comprises a lumped resistance.

13. (Previously Presented) The electro-optical modulator of Claim 10, wherein the modulator chip is a Lithium Niobate chip.

14. (Previously Presented) The electro-optical modulator of Claim 10, further comprising a microstrip line or coplanar line in the microwave input chip, the resistor member being placed in the microstrip line.

15. (Previously Presented) The electro-optical modulator of Claim 14, wherein the microstrip line is a straight line.

16. (Previously Presented) The electro-optical modulator of Claim 10, further comprising a coplanar waveguide in the microwave input chip, the resistor member being placed in the coplanar waveguide.

17. (Previously Presented) The electro-optical modulator of Claim 14, wherein the microstrip line is curved.

18. – 19. (Cancelled)

20. (Original) The electro-optical modulator of Claim 10, wherein the microwave input chip is manufactured with a substrate of Alumina, Gallium Arsenide, Aluminum Nitride or other type of substrates commonly used for microwave applications.

21. - 22. (Cancelled)

23. (Previously Presented) The electro-optical modulator of Claim 1, wherein the thin film resistor is positioned between the RF connector and the RF electrode such that an electrical return loss is lowered which results in the Lithium Niobate chip having a reduced length.

24. (Previously Presented) The electro-optical modulator of Claim 10, wherein the resistor member is positioned between the RF connector and the RF electrode such that an electrical return loss is lowered which results in a lower driving voltage relative to a standard modulator.

25. (Previously Presented) An electro-optical modulator, comprising:
a housing with an input fiber at one end and an output fiber at another end thereof,
wherein the fibers are aligned in the housing along substantially the same axis;
a modulator chip optically connected to the input fiber and the output fiber, the
modulator chip includes an RF electrode;
a RF connector connected to the modulator chip, wherein the RF connector is
positioned such that the RF connector is substantially perpendicular to the axis of the
fibers; and

a RF accessory chip coupled to the modulator chip, the RF accessory chip having a resistor member with a low impedance for increasing the total input impedance of the modulator chip, wherein the resistor member connects the RF connector to the RF electrode of the modulator chip.

26. (Previously Presented) The electro-optical modulator of Claim 26, wherein the resistor member is positioned between the RF connector and the RF electrode such that an electrical return loss is lowered which results in the modulator chip having a reduced length.

27. (Previously Presented) The electro-optical modulator of Claim 26, further including a bias connector, wherein the bias connector is connected to the housing such that the bias connector is substantially parallel to the RF connector.